

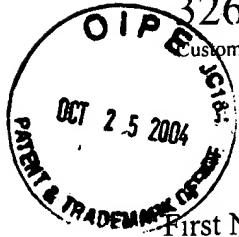
AF/1771

Patent
Case No.: 56319US002

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Customer Number



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: MANN, LAWRENCE J.

Application No.: 09/833942

Group Art Unit: 1771

Filed: April 12, 2001

Examiner: Lynda Salvatore

Title: CLEANING ARTICLES AND METHOD OF MAKING

BRIEF ON APPEAL

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

October 20, 2004

Date

Kathleen M. Sandvig
Signed by: Kathleen M. Sandvig

Dear Sir:

This is an appeal from the Office Action mailed on April 20, 2004, and the Advisory Action mailed August 4, 2004. The fees required under 37 C.F.R. § 1.17(c) in the amount of \$340 for the appeal, under 37 C.F.R. § 1.17(a)(1) in the amount of \$110 for a one month extension, and any other charges currently due should be charged to, or credit any overpayment, to Deposit Account No. 13-3723.

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01 FC:1402 340.00 DA

10/27/2004 CCHAU1 00000168 133723 09833942
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I. REAL PARTY IN INTEREST

The real party in interest is 3M Company (formerly known as Minnesota Mining and Manufacturing Company) of St. Paul, Minnesota and its affiliate 3M Innovative Properties Company of St. Paul, Minnesota.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 23-26, 28-33, 35-37, and 48 are pending in this patent application and are the subject of this Appeal. Claims 23-26, 28-33, 35-37, and 48 stand rejected. Claims 23-26, 28-33, 35-37, and 48 appear in the Claims Appendix.

IV. STATUS OF AMENDMENTS

Claims 23-26, 28-33, 35-37, and 48 have not been amended since the issuance of the Final Rejection.

The present invention relates to articles for cleaning soiled surfaces. The present invention can be used, for example, to clean embedded soil on low gloss paint coatings without significantly increasing the gloss, and on high gloss paint coatings without significantly scratching or reducing the gloss (page 6, lines 15-18). Cleaning articles according to the present invention can be used, for example, to clean soiled painted aircraft surfaces (e.g., low-gloss paint coatings, such as found on military aircraft, and high-gloss paint coatings, such as found on commercial aircraft) (page 6, lines 13-15).

More particularly, the present invention relates to cleaning articles, an embodiment of which is shown in FIG. 2, reproduced below.

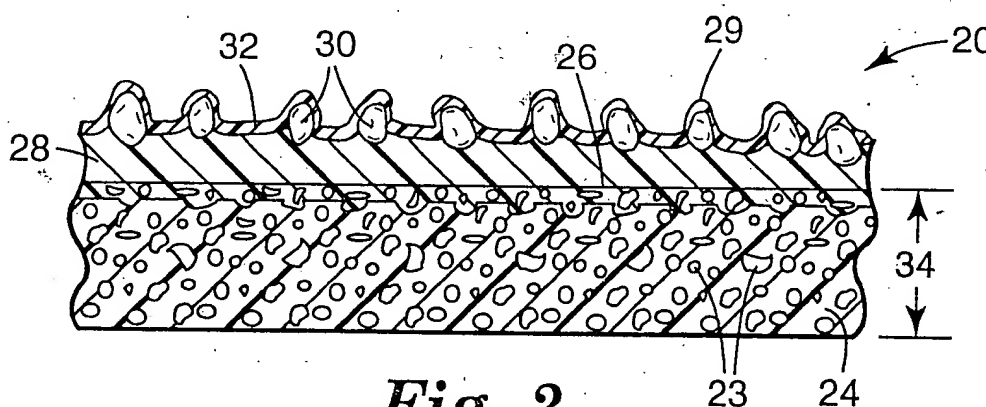


Fig. 2

As shown in FIG. 2, the cleaning article comprises a foam pad 24, and a plurality of organic particles 30 bonded to the foam pad 24 by binder 28 (page 8, lines 5-6). The organic particles 30 are rubber particles (page 11, lines 16-21). In some embodiments (e.g., claims 23-26, 28-30, and 48), the rubber particles have a Shore A hardness less than 80 (page 11, lines 3-6). In other embodiments (e.g., claims 31-33 and 35-37), the rubber particles have a hardness of at least one of a Shore A hardness in the range from 80 to 100 or a Shore D hardness in the range from 30 to 50 (page 10, line 23 to page 11, line 3). The binder 28 has a T_g in the range of 0°C to -70°C (page 10, lines 8-14), and comprises at least one of nitrile rubber, styrene-butadiene rubber, or polyisoprene (page 13, line 22 to page 14, line 1).

VI. Grounds of Rejection to be Reviewed on Appeal

A. Claims 23-26, 28, 29, 31-33, 35, 36, and 48 stand rejected under 35 U.S.C. 103(a) for alleged obviousness over Yamato (U.S. Pat. No. 6,528,154) in view of Lise et al., (U.S. Pat. No. 6,406,504).

B. Claims 30 and 37 stand rejected under 35 U.S.C. 103(a) for alleged obviousness over Yamato (U.S. Pat. No. 6,528,154) in view of Lise et al. (U.S. Pat. No. 6,406,504) as applied to claims 23 and 31.

VII. ARGUMENTS

A. Claims 23-26, 28, 29, 31-33, 35, 36, and 38 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Yamato (U.S. Pat. No. 6,528,154) in view of Lise et al. (U.S. Pat. No. 6,406,504). Appellants respectfully traverse this rejection because it relies on non-analogous art, and there is no evidence of record indicating that those of ordinary skill would have been properly motivated to combine them, much less to combine them in a manner that would have produced Appellants' claimed invention.

The Patent Office fails to acknowledge that the teaching of Yamato is in a different field of endeavor and is not pertinent to the claimed invention. In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor is involved. *In re Bigio*, 381 F.3d 1320, ___, ___ U.S.P.Q.2d ___ (Fed. Cir. Aug. 24, 2004); *In re Clay*, 966 F.2d 656, 659, 23 U.S.P.Q.2d 1058, 1060 (Fed. Cir. 1992). As acknowledged by the Patent Office, "Yamato is from a different field of endeavor of the instantly claimed invention and Lise" (Advisory Action mailed August 4, 2004, page 2, line 12). The Patent Office alleges that the Yamato '154 patent is analogous art because it can be relied upon as "a teaching to using a binder to fix particles to a foam substrate" and to "identify binders which are suitable for adhering particles to foam substrates (*Id.* at page 2, lines 13-14). Appellants disagree.

The Yamato '154 patent is directed to makeup sponge puffs. The makeup sponge puffs reported by Yamato are used to apply makeup beauty products, such as foundation in particular, to skin (see, e.g., column 1, lines 6-8). An object of Yamato was to improve makeup sponge puffs by addressing the problems of poor slip characteristics and a dragging feeling or stiffness of the makeup sponge puff on the skin (column 1, lines 30-34).

In contrast, Appellants' claimed invention relates to cleaning articles. A particular problem with which Appellants' were concerned was the need to more consistently and more easily clean soiled surfaces without significantly scratching or affecting the gloss level of the surface (page 2, lines 7-9). Appellants were not concerned with addressing the problems of poor slip characteristics and a dragging feeling or stiffness of makeup sponge puffs on the skin.

Further, the identification of binders to fix particles to a foam substrate is not reasonably pertinent to the particular problem with which the Appellants were concerned. Accordingly, the Yamato '154 patent is non-analogous art and therefore, the rejection under 35 U.S.C. § 103(a) should be withdrawn.

Further, the Patent Office fails to identify any proper reason why the skilled artisan would have been motivated to combine the respective teachings of Yamato and Lise in a way that would have produced a claimed invention. Patent claims cannot be found obvious in view of a combination of references unless there is some suggestion or incentive to do so. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). "A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of the invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field." *In re Kotzab*, 217 F.3d 1365, 1369, 55 U.S.P.Q.2d 1313, 1316 (Fed. Cir. 2000). "In other words, the examiner must show reasons that the skilled , artisan, confronted with the same problems as the inventor, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2D 1453, 1458 (Fed. Cir. 1998). The reasons for the combination must be articulated with specificity. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2D 1430, 1433-34 (Fed. Cir. 2002).

Although the Patent Office asserts that it would have been obvious to one of ordinary skill in the art to modify the teachings of the Yamato '154 patent to include a binder composition disclosed in the Lise '504 patent, the Patent Office does not adequately take account of the fact that the references are directed to different fields of endeavor. The Yamato '154 patent, for example, is directed to makeup sponge puffs, whereas the Lise '504 patent is directed to abrasive articles.

The Patent Office fails to acknowledge that there are substantial differences in the design and performance parameters one would consider for makeup sponge puffs as compared to abrasive articles. Indeed, the properties of materials one would choose for a makeup sponge puff are different from the desired properties of an abrasive article. The makeup sponge puffs reported by Yamato are used to **apply** makeup beauty products, such as foundation in particular, to skin (see, e.g., column 1, lines 6-8). The makeup sponge puff reported by Yamato decreases

the contact area between the skin and the makeup sponge puff to **reduce** frictional resistance (see, e.g., column 4, lines 1-3). In contrast, the abrasive articles reported by Lise are used to **clean, polish, and abrade** wood, metal, plastic, and the like (column 1, lines 32-35). Frictional resistance is necessary to the cleaning, polishing, and abrading operations reported by Lise et al. The design of an item for cleaning, polishing, and abrading wood, metal, and plastic would not be considered by one skilled in the art seeking to improve the design of an item for applying makeup to skin. Therefore, a person of ordinary skill, aware of the fundamental differences between abrasive articles and makeup sponge puffs, would not be motivated to modify the makeup sponge puff reported in the Yamato '154 patent with an abrasive binder composition reported in the Lise '504 patent.

Further, assuming, *arguendo*, that one were motivated to combine the teachings of the Yamato '154 and Lise '504 patents, one skilled in the art would not have a reasonable expectation of success when modifying the makeup sponge puff reported by Yamato to include a binder from the abrasive article reported by Lise et al. To establish a *prima facie* case of obviousness, there must be a reasonable expectation of success when combining references. *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). As discussed above, the makeup sponge puff reported by Yamato is designed to reduce frictional resistance. Yamato does not reveal any deficiencies with the binder compositions reported therein, nor does Yamato consider the effect that using a binder comprising at least one of nitrile rubber, styrene-butadiene rubber, or polyisoprene would have on the frictional properties of a makeup sponge puff. Accordingly, one skilled in the art would not have a reasonable expectation of success when modifying the makeup sponge puff reported by Yamato to include a binder from the abrasive article reported by Lise.

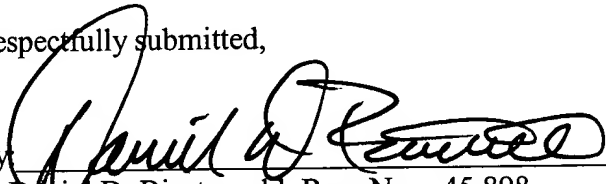
Since there is no reason to believe that those of ordinary skill seeking to develop makeup sponges would have been motivated to consult the abrasive arts, much less to combine them in a manner that would have successfully produced Appellants' claimed invention, a *prima facie* case of obviousness has not been made. For at least these reasons, Appellants respectfully request reconsideration and withdrawal of the rejection of claims 23-26, 28, 29, 31-33, 35, 36, and 38 under 35 U.S.C. § 103.

B. Claims 30 and 37 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over the Lise '504 patent in view of the Yamato '154 patent. Appellants respectfully traverse this rejection because, as discussed above, the cited references are from different fields, and there is no evidence of record indicating that those of ordinary skill would have been motivated to combine them, much less to combine them in a manner that would have produced Appellants' claimed invention. For at least these reasons, Appellants respectfully request reconsideration and withdrawal of the rejection of claims 30 and 37 under 35 U.S.C. § 103.

Respectfully submitted,

October 20, 2004
Date

By


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Claims Appendix

1-22. (canceled)

23. A cleaning article comprising:
a foam pad having a first major surface;
a plurality of rubber particles having a Shore A hardness less than 80; and
binder on at least a portion of the first major surface, the binder having a T_g in the range of 0°C to -70°C and binding the rubber particles, at least in part, to the first major surface, wherein said binder comprises at least one of nitrile rubber, styrene-butadiene rubber, or polyisoprene.

24. A cleaning article according to claim 23, wherein the binder is present on at least a majority of the first major surface.

25. A cleaning article according to claim 23, wherein said organic particles have a Shore A hardness in the range from 20 to less than 80.

26. A cleaning article according to claim 23, wherein the binder is substantially co-extensive with the first major surface.

27. (canceled)

28. A cleaning article according to claim 23, wherein the T_g is in the range from -10°C to -70°C.

29. A cleaning article according to claim 23, wherein the T_g is in the range from -20°C to -30°C.

30. A cleaning article according to claim 23, wherein said rubber particles have an aspect ratio in the range from about 1:1 to about 2:1.

31. A cleaning article comprising:
a foam pad having a first major surface;
a plurality of rubber particles having a hardness of at least one of a Shore A hardness in the range from 80 to 100 or a Shore D hardness in the range from 30 to 50; and
binder on at least a portion of the first major surface, the binder having a T_g in the range of 0°C to -70°C and binding the rubber particles, at least in part, to the first major surface, wherein said binder comprises at least one of nitrile rubber, styrene-butadiene rubber, or polyisoprene.

32. A cleaning article according to claim 31, wherein the binder is present on at least a majority of the first major surface.

33. A cleaning article according to claim 31, wherein the binder is substantially co-extensive with the first major surface.

34. (canceled)

35. A cleaning article according to claim 31, wherein the T_g is in the range from -10°C to -70°C .

36. A cleaning article according to claim 31, wherein the T_g is in the range from -20°C to -30°C .

37. A cleaning article according to claim 31, wherein said rubber particles have an aspect ratio in the range from about 1:1 to about 2:1.

38-47. (canceled)

48. A cleaning article comprising:
a foam pad having a first major surface;
a plurality of rubber particles having a Shore A hardness less than 80 and a particle diameter or length in the range of about 0.05 mm to about 4 mm; and
binder on at least a portion of the first major surface, the binder having a T_g in the range of 0°C to -70°C and binding the rubber particles, at least in part, to the first major surface, wherein said binder comprises at least one of nitrile rubber, styrene-butadiene rubber, or polyisoprene.

Evidence Appendix

None.

Related Proceedings Appendix

None.